

TO 17403218024 No. 3577 01/P. 11

Attorney Docket No. 25341A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Jerry H. C. Lee et al.

Serial No.: 10/826,207

Confirmation No. 1155

Filed: April 16, 2004

Group Art Unit: 1771

Examiner: M. Matzek

**For: Roof Coverings Having Improved Tear Strength**

**BEST AVAILABLE COPY**

**DECLARATION OF DAVID R. JONES, IV**  
**UNDER 37 CFR 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Sir:**

**I, David R. Jones, IV, hereby state as follows:**

**EXPERTISE IN FIELDS OF ASPHALT-BASED ROOF COVERINGS  
AND ASPHALT-BASED PAVING COMPOSITIONS**

1. I am a co-inventor of the above-captioned patent application relating to asphalt-based roof coverings. I also have seven issued patents in the areas of asphalt-based roof coverings and asphalt-based paving compositions.
2. I received a B.S. degree in Basic Sciences from New Mexico Institute of Mining and Technology University in 1972, an M.S. degree in Chemistry from The University of Missouri in 1974, and a Ph.D. degree in Chemistry from The University of Missouri in 1976.
3. In 1984, after eight years as an Analytical Chemist, I was made supervisor of the Asphalt Technology Lab at Owens Corning, and entered the field of asphalt chemistry and product development. I supervised eight Ph.D. Chemists charged with developing asphalt products and asphalt technology, including asphalt-based roof

## Attorney Docket No. 25341A

coverings and asphalt-based paving compositions. In 1987 I began working in the field of asphalt emulsions with Nobel Industries of Sweden. I was in charge of product development and chemicals supply for Nobel's emulsion business world-wide. I developed emulsion chemistries and product formulations to support Nobel's highway paving businesses. In 1989 I joined the University of Texas as part of the oversight management contract for the \$150 million Strategic Highway Research Program (SHRP), a federally-funded five-year program to revolutionize the materials and technologies used in maintenance and construction of America's Highways. During the SHRP program I was tasked with responsibility for technical management of the five asphalt chemistry programs within the program. In 1993 the SHRP issued a series of new specifications for the purchase and construction of bituminous pavements. These specifications have subsequently been adopted by all 50 States and several foreign countries. Following the SHRP program I joined PRI Asphalt Technologies, and for six years was the Vice President of that organization, running the paving asphalt part of the business. Since leaving PRI in 1999 I have worked for the Trumbull Division of Owens Corning as Technical Program Manager, working on development and sourcing of asphalt products such as asphalt-based roof coverings and asphalt-based paving compositions.

4. During this period I have served as an expert witness in the field of asphalt technology in several court venues, including State District Courts in Ohio and Colorado and Federal Courts in Florida, Ohio, and Montana. I have published twenty-nine papers, and made over one hundred and fifty presentations to technical groups and organizations.

**THE MARZOCCHI ET AL. AND WILLIAMS ET AL. PATENTS**

5. I have read and understand U.S. Patent No. 4,265,563 to Marzocchi et al. Amended claims 1 and 9 of the present patent application state that the tear strength of the roof covering is increased by at least about 5% as measured by ASTM D 1922. In the Office Action, the Examiner stated that although Marzocchi et al. does not

BEST AVAILABLE COPY

Attorney Docket No. 25341A

explicitly teach the claimed tear strength improvement, it is reasonable to presume that this property is inherent to Marzocchi et al. This presumption is incorrect. Marzocchi et al. discloses a composition for road paving and repair including asphalt, glass flakes, and a mixture of an amino silane and elemental sulfur. Marzocchi et al. states that the addition of flake glass improves properties such as strength, creep, permeability, and oxidation resistance of the composition. However, my opinion is that the Marzocchi et al. composition does not have a 5% improvement in tear strength. Unlike the roof covering of the present invention, the Marzocchi et al. composition does not include a roofing mat formed from fibers, but rather it includes discrete flakes of glass dispersed in the asphalt. The Marzocchi et al. composition does not have a good tear strength because there is nothing like a roofing mat to hold it together and keep it from tearing. The discrete flakes of glass in the asphalt can be easily separated from each other, so they do not provide good tear strength. Even with the addition of the mixture of amino silane and elemental sulfur to the asphalt and glass flakes, the tear strength of the composition is poor. Moreover, the Marzocchi et al. composition is not the type of composition that can be tested for tear strength using ASTM D 1922. Enclosed with this Declaration are summaries of the ASTM D 1922 test for tear strength, and the ASTM D 228 standard for asphalt shingles and roll roofing which refers to the ASTM D 1922 test as one of the standard test methods. The ASTM D 1922 test is applicable to the testing of thin sheeting, such as asphalt shingles and roll roofing, for tear strength. The Marzocchi et al. composition is not in the form of thin sheeting, and it thus cannot be measured by this test. As mentioned above, the Marzocchi et al. composition is for road paving and repair, and thus it is significantly different in form and properties from a roof covering.

6. I have read and understand U.S. Patent No. 4,210,459 to Williams et al. In the Office Action, the Examiner stated that although Williams et al. does not explicitly teach the claimed tear strength improvement, it is reasonable to presume that this property is inherent to Williams et al. This presumption is incorrect. Williams et al. discloses polymer composite articles including a polymer, an inorganic substrate and a polysulfide silane coupling agent. The polymer composite articles include rubber,

**BEST AVAILABLE COPY**  
Attorney Docket No. 25341A

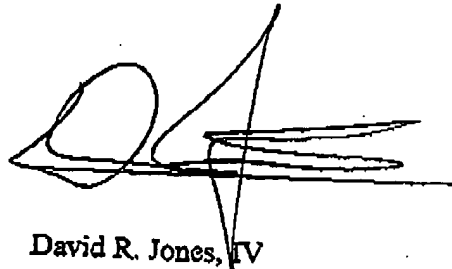
thermoplastic and thermosetting resins, paints, varnishes, inks and the like; preferred are vulcanized rubber articles such as tires, gaskets and hoses. The coupling agent is said to provide a strong chemical bridge between the inorganic substrate and the polymer. However, there is no suggestion in Williams et al. of an improvement in tear strength. The articles disclosed in Williams et al. are either flowable or are so hard that tearing is not a substantial issue. There is no disclosure of thin sheeting that would be susceptible to tearing. Therefore, my opinion is that it cannot be said that Williams et al. inherently discloses a 5% improvement in tear strength. The Williams et al. composite articles are not the type of articles that can be tested for tear strength using ASTM D 1922, because there is no disclosure of composite articles in the form of thin sheeting. Further, the present claims relate to asphalt-based roof coverings, whereas the Williams et al. composite articles include polymers and not asphalt. The Williams et al. composite articles are significantly different in composition, form and properties from the asphalt-based roof coverings of the present invention.

**CERTIFICATION AND OATH.**

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the patent application or any patent issued thereon.

Date: JAN 19, 2006

By

  
David R. Jones, IV